

REMARKS

Reconsideration of this application is respectfully requested. Upon entry of the foregoing amendment, claims 60-78 are pending in the application, with claims 60, 73, 77, and 78 being the independent claims.

I. Request For Interview with Examiner in Accordance with MPEP § 713.01

Applicant's representative contacted the Examiner and respectfully requested an interview on September 12, 2003. The Examiner suggested that Applicant submit a response to the Office Action in writing, stating that he was refusing to grant an interview in connection with this application for any reason. Given the fact that the undersigned Applicant's representative has not interviewed this application at all, the Examiner's refusal is difficult to understand.

Applicant once again renews the request for an interview with the Examiner in accordance with MPEP § 713.01, which states:

Where the reply to a first complete action includes a request for an interview ... the Examiner, as soon as he or she has considered the effect of the reply, should grant such request if it appears that the interview or consultation would result in expediting the case to final action.

Applicant believes that an interview would expedite this application to a final action. As set forth below, applicant respectfully traverses the rejections set forth in the office action.

Applicant believes that a discussion of the claims with respect to the cited references and rejections under 35 U.S.C. § 112 would be beneficial in that the Examiner and the Applicant would likely be able to reach an agreement as to acceptable claim language. Without guidance from the Examiner as to what claim language is acceptable, Applicant is left to assume that the language presented herein is acceptable for the reasons provided.

Specifically, Applicants would like to discuss the Examiner's rejections under 35 U.S.C. § 112, second paragraph, and the rejections under 35 U.S.C. §§ 102(b), 103(a).

In accordance with MPEP § 713.03, Applicants respectfully request that the Examiner contact the undersigned at the number on the signature page of this reply before issuing another Office Action.

II. Claims 73-76 Comply with the Written Description Requirement (35 U.S.C. § 112)

Claims 73-76 stand rejected under 35 U.S.C. § 112, first paragraph.

In the Office Action, the Examiner states that: “[I]t is unclear what structure in [A]pplicant’s invention comprises the haptic feedback application interface and how it uses the haptic feedback and what structure in the invention determines the magnitude of haptic feedback and how it is constructed.” Office Action, at 2.

Claims 73-76 are claims directed to a method. Because the claims define the metes and bounds of the invention, the pending method claims need not recite which “structure in the invention determines the magnitude of haptic feedback and how it is constructed.” *See Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 607, 70 S.Ct. 854, 94 L.Ed. 1097 (1950) (a claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using, or selling the protected invention). Nevertheless, an example of the structure for determining the magnitude of force feedback (e.g, a sensor) is fully described at least in paragraph [0090] in such detail that one of ordinary skill in the art would not contest that Applicants had possession of the claimed method at the time of filing.

The specification fully supports the claimed, force feedback interface and how “it uses [sic] haptic feedback.” Just to be clear, the claims do not recite the “use” haptic feedback; rather, the force feedback interface outputs haptic feedback, examples of which are described in the specification. In fact, an example of a force feedback interface as an interface between man and machine is described throughout the specification, for example, paragraphs [0008] to [0013].

Because the specification as filed describes in such detail as to reasonably convey to one skilled in the art of force feedback interface devices that at the time the application was filed, the inventor had possession of the claimed invention, claims 73-76 satisfy the requirements of 35 U.S.C. § 112, first paragraph and the rejection should be withdrawn.

III. The Claims are Definite (35 U.S.C. § 112)

Claims 60-76 stand rejected under 35 U.S.C. § 112, second paragraph.

A. *The Term “associated with” as Used in Claims 61-63 is Definite*

Claims 60-63 stand rejected because the Examiner opined that the term “associated with” “calls for no particular type of association.” Applicant respectfully traverses this rejection.

The MPEP states:

The examiner’s focus during examination of claims for compliance with 35 U.S.C. 112, second paragraph is whether the claims meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. When the examiner is satisfied that patentable subject matter is disclosed, and it is apparent to the examiner that the claims are directed to such patentable subject matter, he or she should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctiveness. **Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire.** Examiners are encouraged to suggest claim language to applicants to improve clarity or precision of the language used, but **should not reject claims or insist on their own preferences if other modes of expression selected by applicants satisfy the statutory requirement.**

MPEP § 2173.02 (emphasis added). Applicant believes that one skilled in the art would understand what is being claimed when the claim is read in light of the specification. For example, claim 60 states that the first sensor is configured to output a position signal, and that the position signal is associated with a position of the force feedback member. One of ordinary skill in the art can readily understand the manner in which the position signal is associated with the force feedback member, particularly in light of the teachings within the specification. For example, the sensor and the position signal are described at paragraphs [0115] to [0120]. The Examiner's position that a particular type of association needs to be recited is without legal basis and contradicts the MPEP's imperative to provide latitude in the Applicant's manner of expression and aptness of terms even where the claim language is not as the Examiner may desire. The Examiner's position is particularly difficult to understand given the fact that the Examiner refuses to grant an interview for any reason (contrary to MPEP § 713.01) and neglected to provide acceptable alternative claim language (contrary to MPEP § 2173.02).

Furthermore, the references of record do not necessitate the narrowing of this claim element. The MPEP cautions against rejecting a claim under § 112, second paragraph, because it seems to broad:

Breadth of a claim is not to be equated with indefiniteness. *In re Miller*, 441 F.2d 689, 169 USPQ 597 (CCPA 1971). If the scope of the subject matter embraced by the claims is clear, and if applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. 112, second paragraph.

MPEP § 2173.04.

Claims 61-63 recite an output "force associated with the force feedback." For at least the reasons stated above with respect to claim 61, the term "associated with" as used in claims 62-63 is not indefinite.

The Examiner has failed to establish a *prima facie* case showing that the term “associated with,” as used in claims 61-63 would not be understood in light of the specification by one of ordinary skill in the art. *See Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). For at least this reason, claims 61-63 meet the requirements of § 112, second paragraph. Applicants respectfully request that this rejection be withdrawn.

B. The Term “configured to” as Used in Claims 63 and 64 is Definite

Claim 63 recites “a force feedback interface, the force applying platform being biased away from the force feedback interface.” Claim 64 recites “the force sensing platform being configured to determine a magnitude of the force.”

Claim 63 has been amended to clarify the claimed invention. The term “configured to” no longer appears in this claim, and therefore, the rejection of this claim is moot.

Regarding claim 64, Applicant notes that the Patent Office finds the term “configured to” generally acceptable. For example, upon a search of U.S. Patents issued since 1976, 123,108 patents have been issued that contain the term “configured to” in the claims. Of these patents, 66 patents have been issued by the present Examiner that include the term “configured to” in the claim language.

This adds further confusion as to why the term “configured to” is not acceptable as exists in the presently pending claims, and furthermore, what alternatives the Examiner could suggest. Applicant believes that an interview would have clarified this issue.

For at least these reasons, claims 63 and 64 meet the requirements of § 112. Applicant respectfully requests that this rejection be withdrawn.

C. The “fluid” Recited in Claim 65 is Correlated with the Actuator

Independent claim 60 recites “an actuator configured to output force feedback.” Claim 65 recites “the force feedback is applied at least in part by a fluid.” Thus, because the actuator is configured to output the force feedback, which as recited in claim 65 is applied at least in part by a fluid, the fluid is correlated with the actuator.

Because the fluid is correlated with the actuator, one of ordinary skill in the art would understand what is being claimed when the claims are read in light of the specification. Thus, claim 65 satisfies the requirements of § 112, second paragraph, and the rejection should be withdrawn.

D. Claims 66-69 Meet the Requirements of 35 U.S.C. § 112, Second Paragraph

Claim 66 recites “the force feedback is a simulated texture.” Claim 60, on which claim 66 depends, recites “a force feedback member, the force feedback member being configured to receive the force feedback signal and to output force feedback.”

The Examiner states that “these claims [claims 66-69] appear to be directed to elements 901, 920, etc. in figure 9 whereas parent claim 60 appears to be directed towards elements 909, 917, 910. Thus the elements in claims 66-69 should be clearly distinguished from and correlated with these in claim 60.” Office Action at page 4.

As claimed, the force feedback output from the force feedback member is associated with the “simulated texture” of claim 66. Rather than “clearly distinguishing” the elements, as suggested by the Examiner, the “simulated texture” recited in claim 66 further defines the “force feedback” described in claim 60. For at least this reason, the rejection under § 112, second paragraph, is improper and should be withdrawn.

E. The Elements of Claim 70 are Correlated with the Elements of Claim 60

Claim 70 recites that the “force feedback member” includes “an elongated element ... and ... at least one guide element.” Claim 60 recites “a force feedback member.” Claim 70 further recites the structure of the “force feedback member” and is thus correlated with the elements of claim 60. The rejection of claim 70 under 35 U.S.C. § 112, second paragraph, is therefore improper and should be withdrawn.

F. Claim 72 Satisfies the Requirements of 35 U.S.C. § 112, Second Paragraph

Claim 72 has been amended as suggested by the Examiner. Therefore, the rejection of this claim under 35 U.S.C. § 112, second paragraph, should be withdrawn.

G. Claim 73 Satisfies the Requirements of 35 U.S.C. § 112, Second Paragraph

Claim 73 recites “outputting a position signal associated with a position of a force feedback interface “and” outputting force feedback via the force feedback interface with at least one of a plurality of force feedback members” (emphasis added). Both portions of claim 73 recite a “force feedback interface” and, therefore, are all correlated and meet the requirements of 35 U.S.C. § 112, second paragraph. Therefore, the rejection of claim 73 under 35 U.S.C. § 112, second paragraph should be withdrawn.

IV. Claims 60, 65, 73 and 74 are Patentable over U.S. Patent No. 3,263,824 to Jones et al. (hereafter “the Jones patent”)

Claims 60, 65, 73, and 74 stand rejected under 35 U.S.C. § 102(b) as being anticipated by the Jones patent.

Claim 60 recites “a second sensor configured to output an applied force signal based on the force feedback output by the force feedback member.” Claim 73 recites “determining a magnitude of force feedback output at the force feedback interface.”

The *Jones* patent is directed to a servo-controlled manipulator device. The *Jones* patent discloses a system for gripping an object using a mechanical manipulator in response to the movement of an individual’s hand. The glove 11 fits on a user’s hand and contains sensors 12 for sensing the motion of the hand of the user. Furthermore, the manipulator includes a sensor 14 for determining the rotational position of the joint 17 of the manipulator. *See* column 2.

The *Jones* patent does not disclose or suggest “a second sensor configured to output an applied force signal based on the force feedback output by the force feedback member,” as recited in independent claim 60. Furthermore, the *Jones* patent fails to disclose or suggest “determining a magnitude of force feedback output at the force feedback interface,” as recited in independent claim 73.

For at least these reasons, claims 60 and 73 are allowable over the *Jones* patent. Independent claims 77 and 78 contain similar elements and are allowable for at least this reason. Claims 61-72 and 74-76 depend from claims 60 and 73, and are allowable for at least that reason.

V. Claims 60, 65, 73, and 74 are Patentable Over U.S. Patent No. 5,986,643 to Harvill et al. (hereafter “the *Harvill* patent”) in view of either U.S. Patent No. 4,302,138 to Zarudiansky (hereafter “the *Zarudiansky* patent”) or the *Jones* patent.

Claim 60, 65, 73 and 74 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the *Havrill* patent in view of either the *Zarudiansky* patent or the *Jones* patent.

Claim 60 recites “a second sensor configured to output an applied force signal based on the force feedback output by the force feedback member.” Claim 73 recites “determining a magnitude of force feedback output at the force feedback interface.”

The *Harvill* patent discloses an apparatus for providing tactile stimulus to a part of the body of a physical operator when the user encounters a virtual object in a computer interface. The feedback is applied using memory metals. The movements of the user are sensed and input into a computer using sensors.

The *Harvill* patent fails to disclose or suggest “a second sensor configured to output an applied force signal based on the force feedback output by the force feedback member,” as recited in independent claim 60. Furthermore, the *Harvill* patent fails to disclose or suggest “determining a magnitude of force feedback output at the force feedback interface,” a recited in independent claim 73.

The *Zarudiansky* patent discloses a slave hand that may be manipulated in response to the movement of a hand of a user. Feedback may be sent to a user so that the user can “feel” the object being handled by the slave hand. Sensors may be located on the glove that are “capable of producing signals representative of tactile parameters capable of being user to obtain data on the object to be manipulated and on the way in which this object is held by the slave hand.” Column 3, lines 31-65. These sensors are configured to detect the manipulations of the user’s hand and to allow the system to control the slave hand in response to those signals.

The *Zarudiansky* patent fails to disclose or suggest “a second sensor configured to output an applied force signal based on the force feedback output by the force feedback member,” as recited in independent claim 60. Furthermore, the *Zarudiansky* patent fails to disclose or suggest

“determining a magnitude of force feedback output at the force feedback interface,” as recited in independent claim 73.

As discussed above, the *Jones* patent fails to disclose or suggest “a second sensor configured to output an applied force signal based on the force feedback output by the force feedback member,” as recited in independent claim 60. Furthermore, the *Jones* patent fails to disclose or suggest “determining a magnitude of force feedback output at the force feedback interface,” as recited in independent claim 73.

For at least these reasons, claims 60 and 73 are allowable over the cited references alone or in combination. Independent claims 77 and 78 contain similar elements and are allowable for at least this reason. Claims 61-72 and 74-76 depend from claims 60 and 73, and are allowable for at least that reason.

VI. Conclusion

Applicants believe that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. Applicant reiterate the request for an interview and respectfully request that the Examiner contact the undersigned before issuing an action in response to this reply.


Prompt and favorable consideration of this Amendment is respectfully requested.

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Cooley Godward LLP
ATTN: Patent Group
One Freedom Square
Reston Town Center
11951 Freedom Drive
Reston, VA 20190-5656
Tel: (703) 456-8000
Fax: (703) 456-8100

Respectfully submitted,
COOLEY GODWARD LLP

By:



Erik B. Milch
Reg. No. 42,887